19. BUTTERFLY NOTES FROM ASSAM : THE UNDESCRIBED FEMALE OF *YPTHIMA ATRA*

Ypthima atra Cantlie & Norman. The ♂ was described in the Journal, Vol. 56, No. 1, pp. 66-71. A single ♀ has now been taken by Norman at Kangpokpi (Manipur) on 5-10-58. This was caught a few miles from where the ♂♂ had been taken, at the same altitude and in the same type of country. It is described below:

Ypthima atra Cantlie & Norman—♀

The tiny ocellus above and below in space 2 of the fore wing, the grey ground colour below with no trace of yellow and the bipupilled ocellus at the tornus underhind are characteristics of *atra*. The ocelli underhind are, however, like those of *methora* in position, those in spaces 5 and 6 being close but not touching, likewise those in 2 and 3. The bipupilled ocellus at the tornus is not circular as in the previously taken ♂♂ of *atra*, but is like a figure of 8, exhibiting semi-fusion of two ocelli; and this ocellus is at the same distance from and in echelon with those in spaces 2 and 3, not in line with them.

This ♀ brings *atra* nearer to *methora*, although *methora* never has the tiny ocellus in space 2 of the fore wing, and the tornal ocelli underhind, although touching, are never, even partially, fused in the latter species.

SELENG T.E.,
SELENG HAT P.O.,
UPPER ASSAM,
February 22, 1961.

KEITH CANTLIE
T. NORMAN

20. A NEW FRUIT BORER PEST *RAPALA VARUNA* HORSFIELD (LEPIDOPTERA : LYCAENIDAE) ON GUAVA IN SOUTH INDIA[1]

INTRODUCTION

Of the several pests noted on Guava (*Psidium guajava* L.) those that attack the fruits are considered to be the most serious. The fruits are frequently infested with the maggots of the fruit flies *Dacus ferrugineus* F., *D. ferrugineus dorsalis*, and *D. zonatus*, and

[1] Communicated by the Dean, Agricultural College & Research Institute, Coimbatore.

caterpillars of the castor capsule borer *Dichocrocis punctiferalis* Gr. and the pomegranate fruit borer *Virachola isocrates* F. (1 & 2). Tea blight *Helopeltis antonii* S., a reddish brown Mirid bug, commonly punctures the guava fruit and causes the 'blister disease' by making way for the entry of the fungi *Petalotiopsis* (*Pestalotia*) *psidii* and *Glomerella cingulatum* or *G. psidii* (1). Sometimes the fruit sucking moth *Ophideres fullonica* L. attacks the fruits at night; it pierces the fruit and sucks the sap, causing the fruit to rot around the puncture. Now, another caterpillar *Rapala varuna* H. has been found to cause damage to the fruits by boring into them. The insect was found in the trees in the Agricultural College and Research Institute, Coimbatore, during June-July. Since this is the first record of its occurrence on this host and as there is a possibility of its becoming a major pest in future, the observations made are given below.

Previous Records

Swinhoe (3) has recorded the larvae of *Rapala varuna* H. feeding on the flowers of *Zizyphus xylopyrus* Willd. Wynter-Blyth (4) also noted it, on the flowers of *Quisqualis indica* L., *Zizyphus rugosa* Lamk., *Z. xylopyrus* Willd., and *Sapindus laurifolius* Vahl (*trifoliatus* Linn.). It is also of much interest that the pest has been noted here feeding on guava fruits which deviates from its normal flower feeding habit.

The Larva

Description. Swinhoe (3) has described the larva similar to that of *R. schistacea* in shape and protuberances but the colour is 'green, with a curved diagonal line almost pure white, to each segment; the fifth segment is very dark green, in some cases almost black, forming a band'. About *R. schistacea* he says 'Larva when full grown, quite ¾" in length; the anterior segment contractile; rather stout; of the usual onisciform shape—roundly cylindrical instead of flattened. Head globular, very small, retractile and, when protruded, singularly like that of tortoise. Outline from above, a hexagonal cylinder, very slightly narrowing towards the head; segmental folds deeply marked; the spiracular and sub-dorsal ridges very deeply serrated. The humps are sharply pyramidal. Of these there are two unbroken series on each side, one sub-dorsal and one spiracular. The sub-dorsal series consists of 8 humps, continuous from the third to tenth segment. The spiracular series consists of 11 humps, continuous from the third

to the 13th segment. Each hump bears 2, 3 or 4 short brown hairs. The texture of the skin is soft, smooth and velvety.' The caterpillar taken here coincides with the characters given above, except that it is darker and more brown than green.

Food Habits. The caterpillar bores into the guava fruit and eats the pulp from inside, rendering it unsuitable for consumption. Only mature, unripe fruits are attacked, and at times the damaged fruits fall down in numbers. Only one caterpillar is found in a fruit and the affected fruit shows a large hole on it indicating the presence of the pest.

It pupates in the fruit in the tunnel made by it. The pupa is brown with a dark brown median longitudinal line and many minute dark spots, measuring about 1-1.4 cm. in length, without much difference between the anterior and posterior ends.

Description of the Butterfly

Rapala varuna H. is commonly known as the 'Indigo Flash'. Wynter-Blyth (4) describes it as follows: 'Male: above, dull shining dark blue, not blue shot, shading to dark border. Forewing. Female: above, pale shining steel blue, dark border. ♂♀: below, ground colour slaty brown, often with purple or greenish gloss, to almost white in dry season forms. Forewing discal bands white-edged on both sides and usually broad. Hindwing discal band generally curved and parallel to termen; bar end cell usually close to or touching discal band. Width of markings variable.'

Economic Status

So far the insect has been noted only in small numbers in a few trees in the College orchard and the Cotton Breeding Station. The affected fruits have only the outer rind left, the inner pulp being completely scooped out. Many fruits had dropped to the ground due to earlier attack. If the population increases it is bound to cause considerable loss to the cultivator.

Acknowledgement

We are grateful to Dr. S. Kanakaraj David, Reader in Entomology, Post-Graduate Training Centre, Coimbatore, for valuable suggestions given in the preparation of this paper.

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October 1, 1960.

REFERENCES

1. Hayes, W. B. (1957) : Fruit growing in India : 295-96. Kitabistan, Allahabad.
2. Ramakrishna Ayyar, T. V. (1940) : Handbook of Economic Entomology for South India : 305. Govt. Press., Madras.
3. Swinhoe, Col. C. (1911-12) : Lepidoptera Indica. Vol. 9. Rhopalocera., Family-Lycaenidae : 56-58, plate 718, figs. 1, 1a, 1b.
4. Wynter-Blyth, M. A. (1957) : Butterflies of the Indian Region : 361, 363, 499, pl. 47. Bombay Natural History Society, Bombay.

21. A SKIPPER BUTTERFLY [*HASORA ALEXIS* (FABRICIUS)] CATCHES A SPIDER

It is not unusual for butterflies and other insects to be caught in spiders' webs. On July 21, 1960 an interesting phenomenon was observed in Ahwa, Surat Dangs. A skipper, the common Banded Awl, *Hasora alexis*, which is a member of the Hesperidae group of butterflies, caught a tiny white spider and was firmly clasping it with its six walking legs.

A teacher caught the skipper alive between his thumb and finger and then brought it to me for observation. The skipper was very reluctant to release the spider. Only when I started to drop both live specimens in the ether jar did the skipper drop the spider.

What is the explanation of this butterfly's behaviour? Have butterflies ever been known to prey upon spiders or other living animals?

AHWA, VIA BILIMORA,
DANGS DISTRICT, E. M. SHULL
GUJARAT STATE,
July 25, 1960.

[Mr. H. G. Acharya to whom the spider was sent for identification states that it appears to be one of the Crab Spiders, Family Thomisidae, whose curious legs enable them to move sideways and backwards like crabs. These spiders hunt their prey without the aid of webs and are also known to change their colour to match the flowers on which they lie in wait to capture insects visiting the flowers. The mouth parts of a butterfly only permit it to suck nectar and other liquids and we cannot help feeling that Dr. Shull was mistaken. The spider might have attempted to catch the butterfly as they have been known to do or they might have got entangled with each other by accident—EDS.]